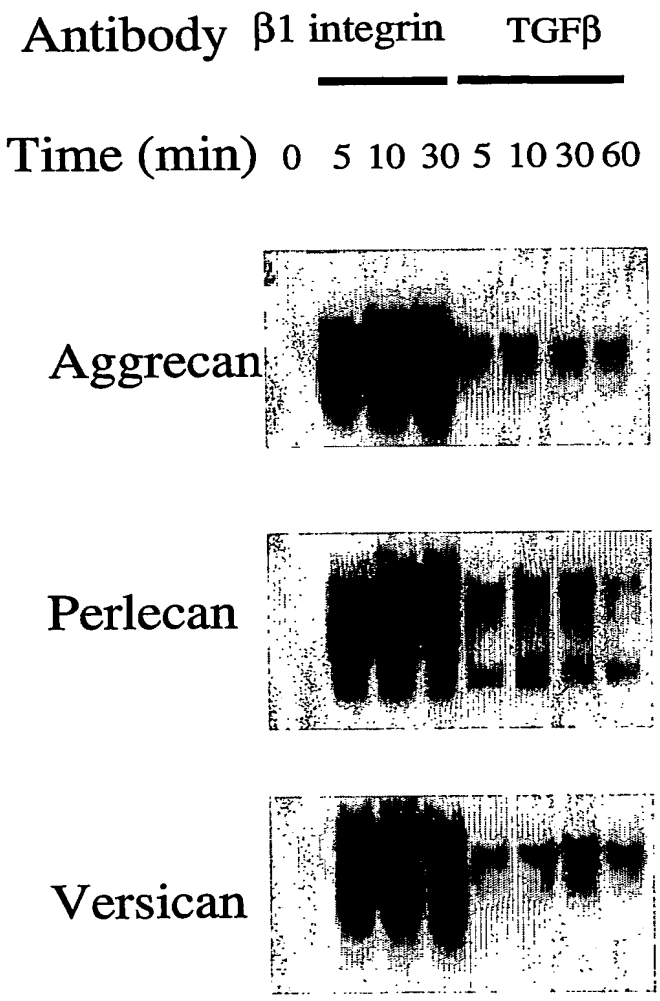


Figure 1. The effect of β1 integrin functional modification on proteoglycans in H441 cells

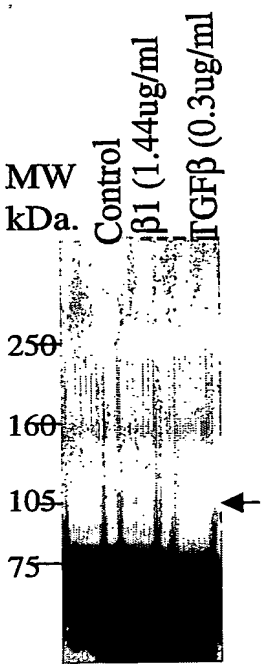


Figure 2

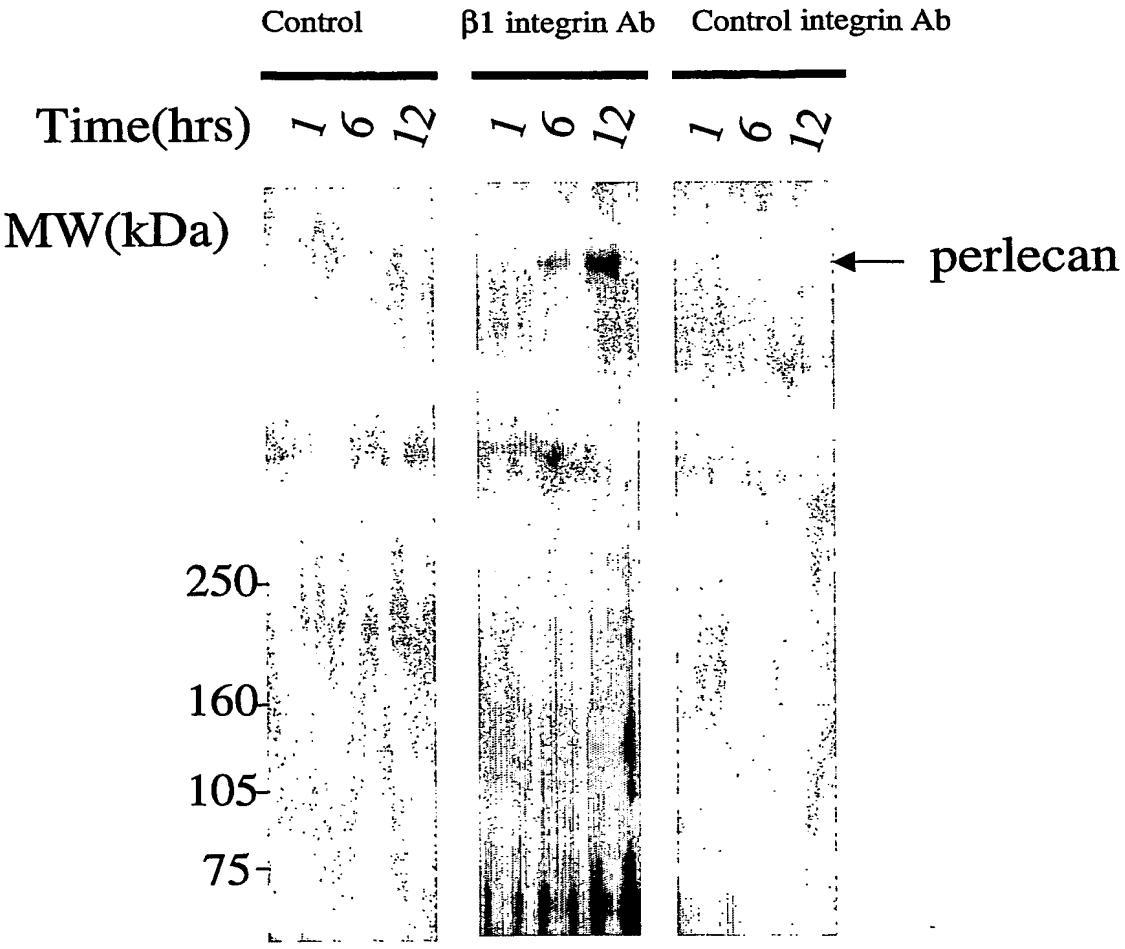


Figure 3.The effect of β1 functional modification on perlecan expression in human lung explants.

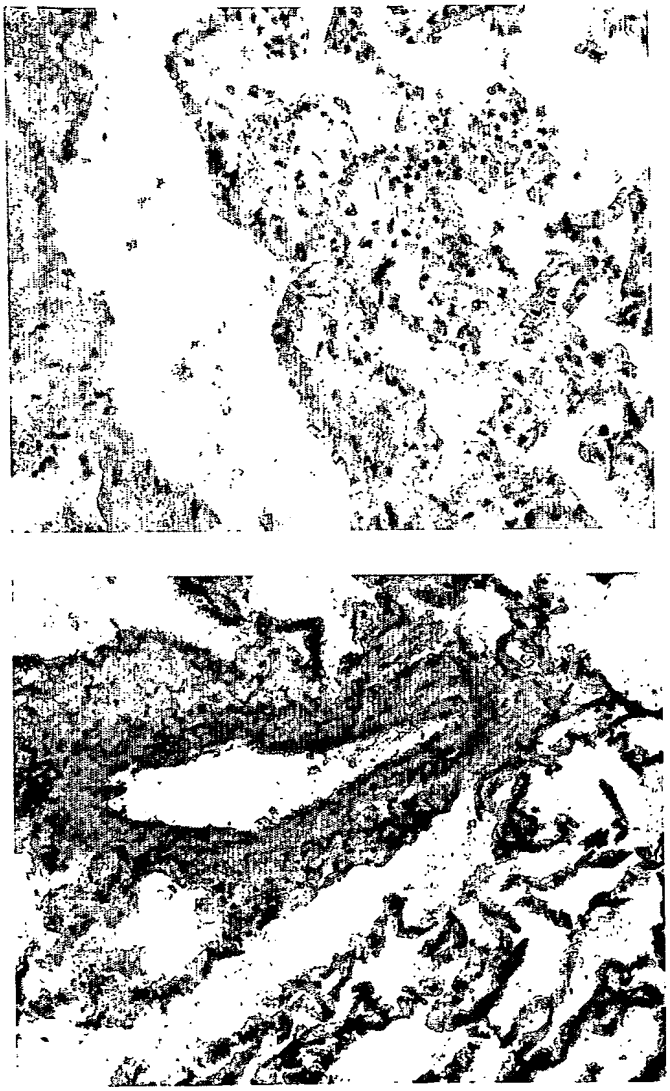


Figure 4. The effect of β1 functional modification on perlecan expression in human lung explants.

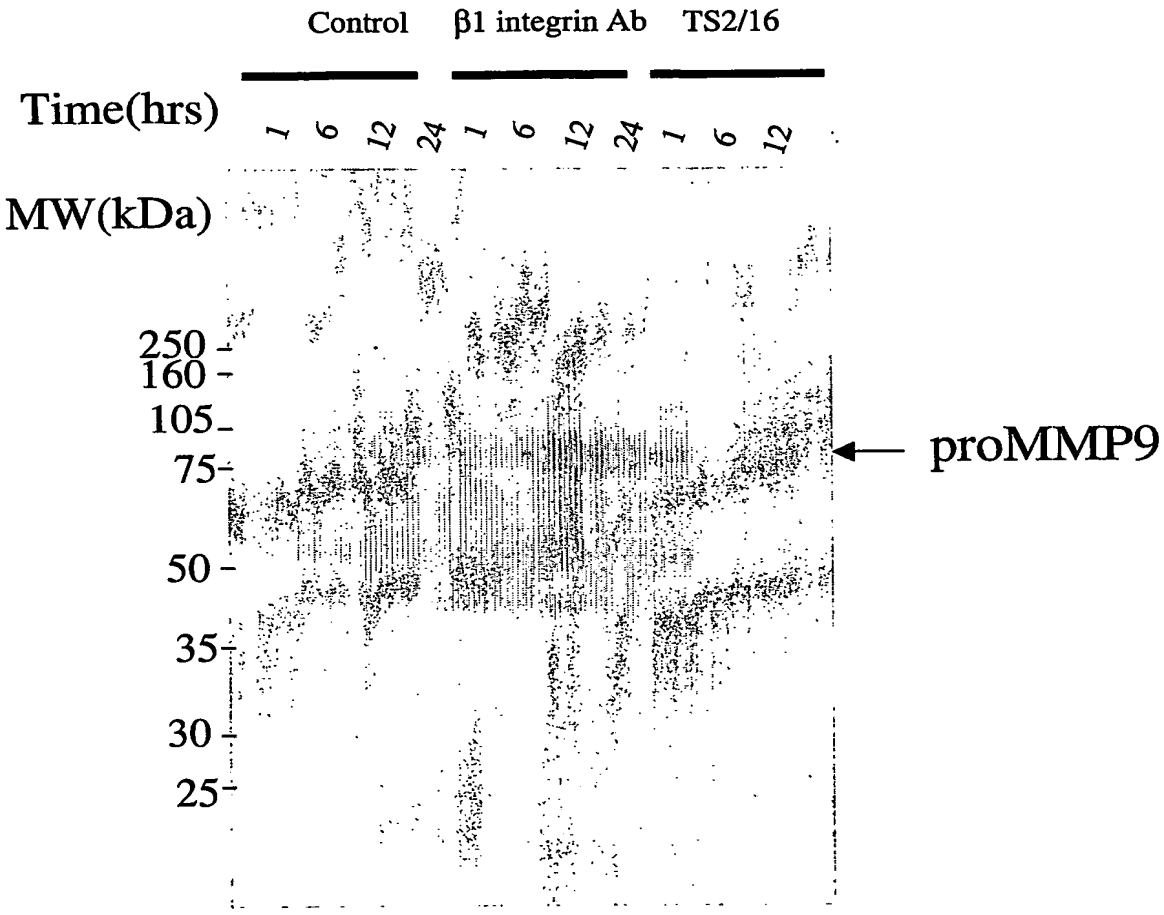


Figure 5. The effect of β1 integrin functional modification on MMP9 in human lung explants

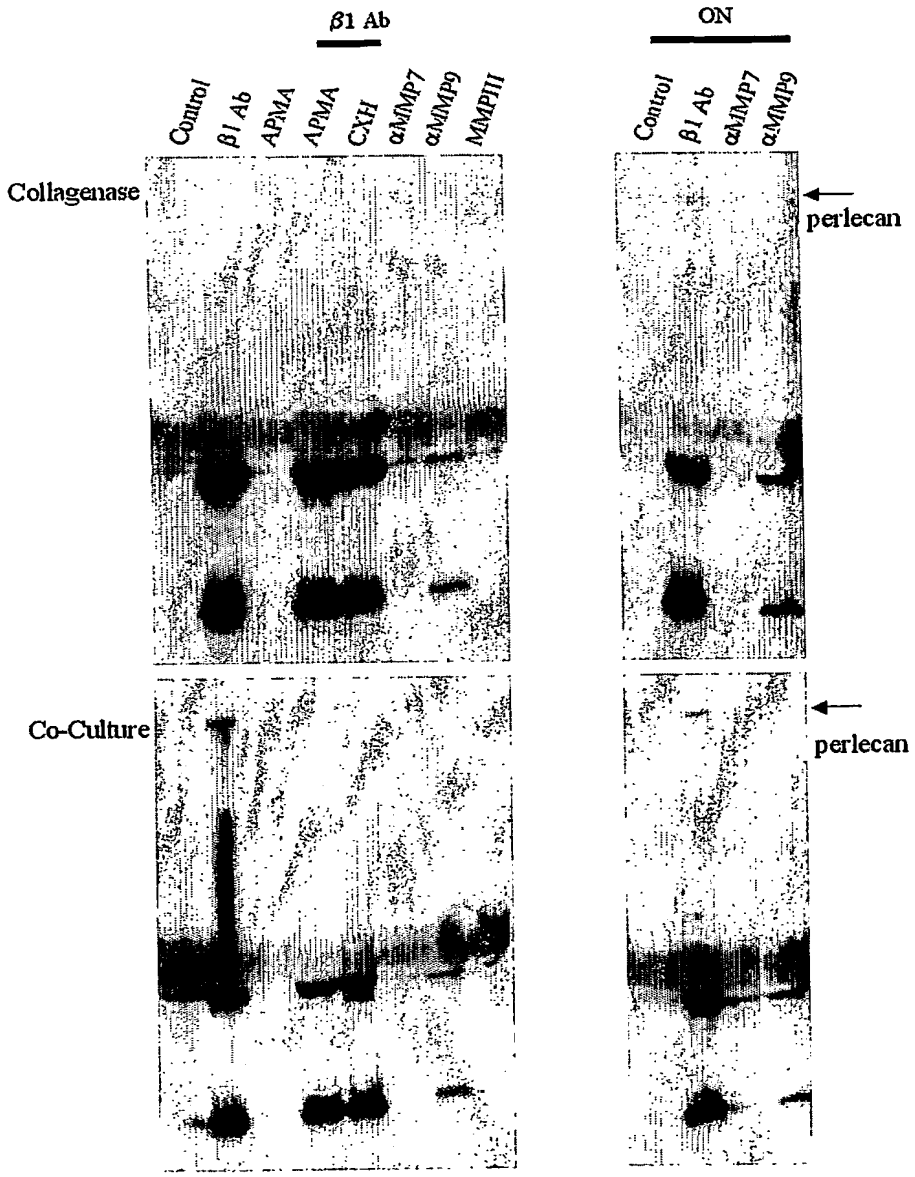


Figure 6. The effect of β1 integrin functional modification on perlecan in cultured human lung cells

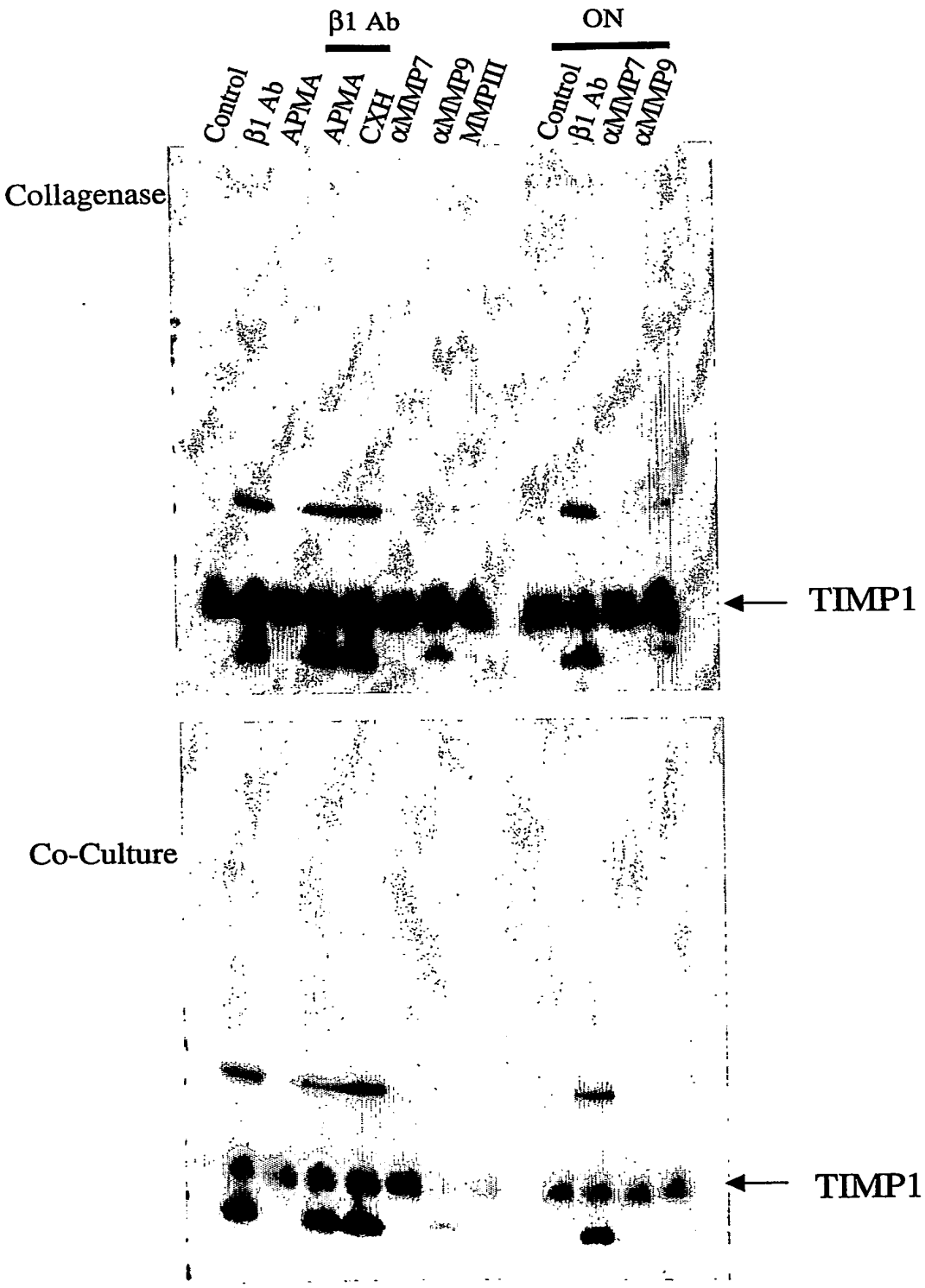


Figure 7. The effect of β1 integrin functional modification on TIMP1 in cultured human lung cells

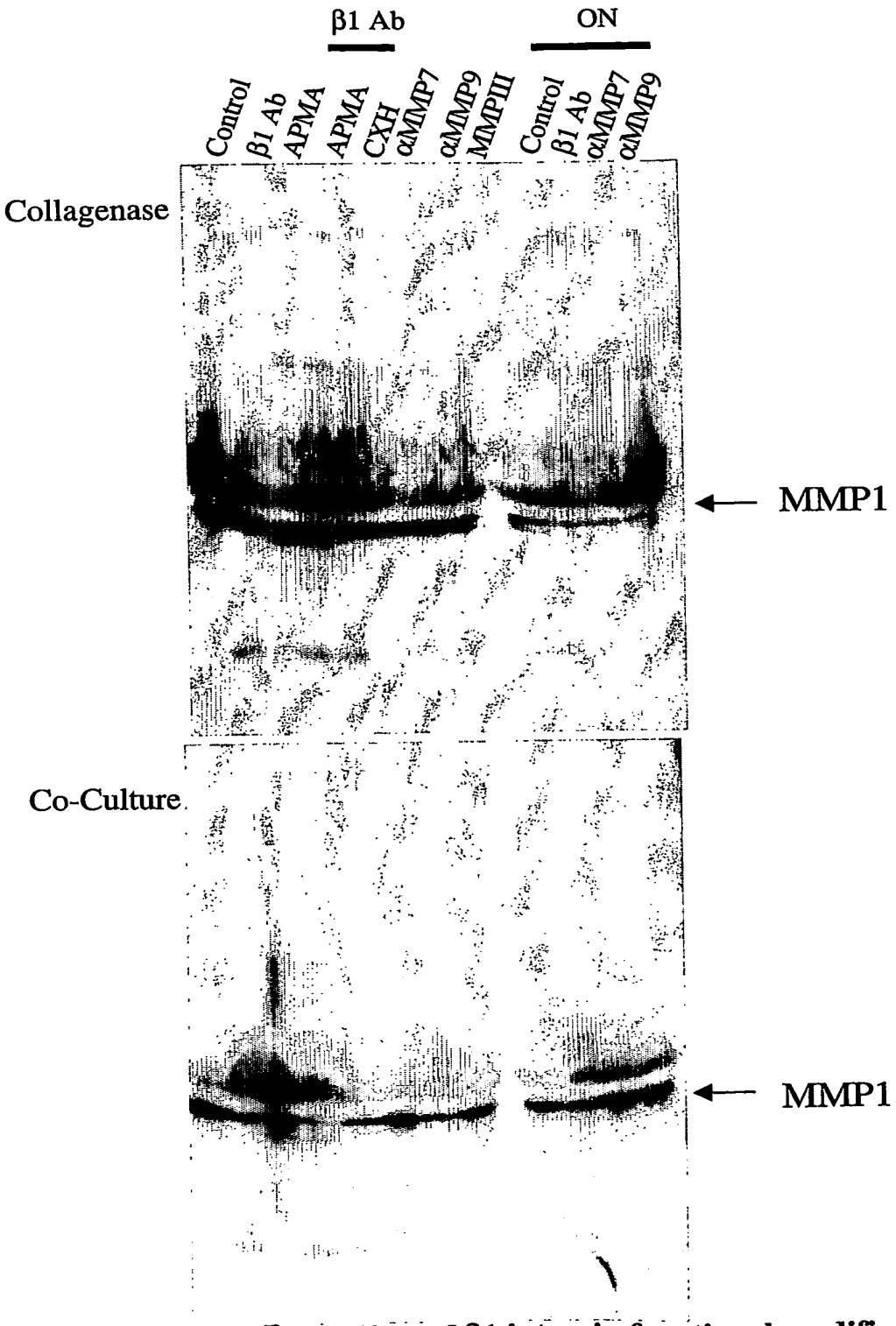


Figure 8. The effect of β1 integrin functional modification on MMP1 in cultured human lung cells

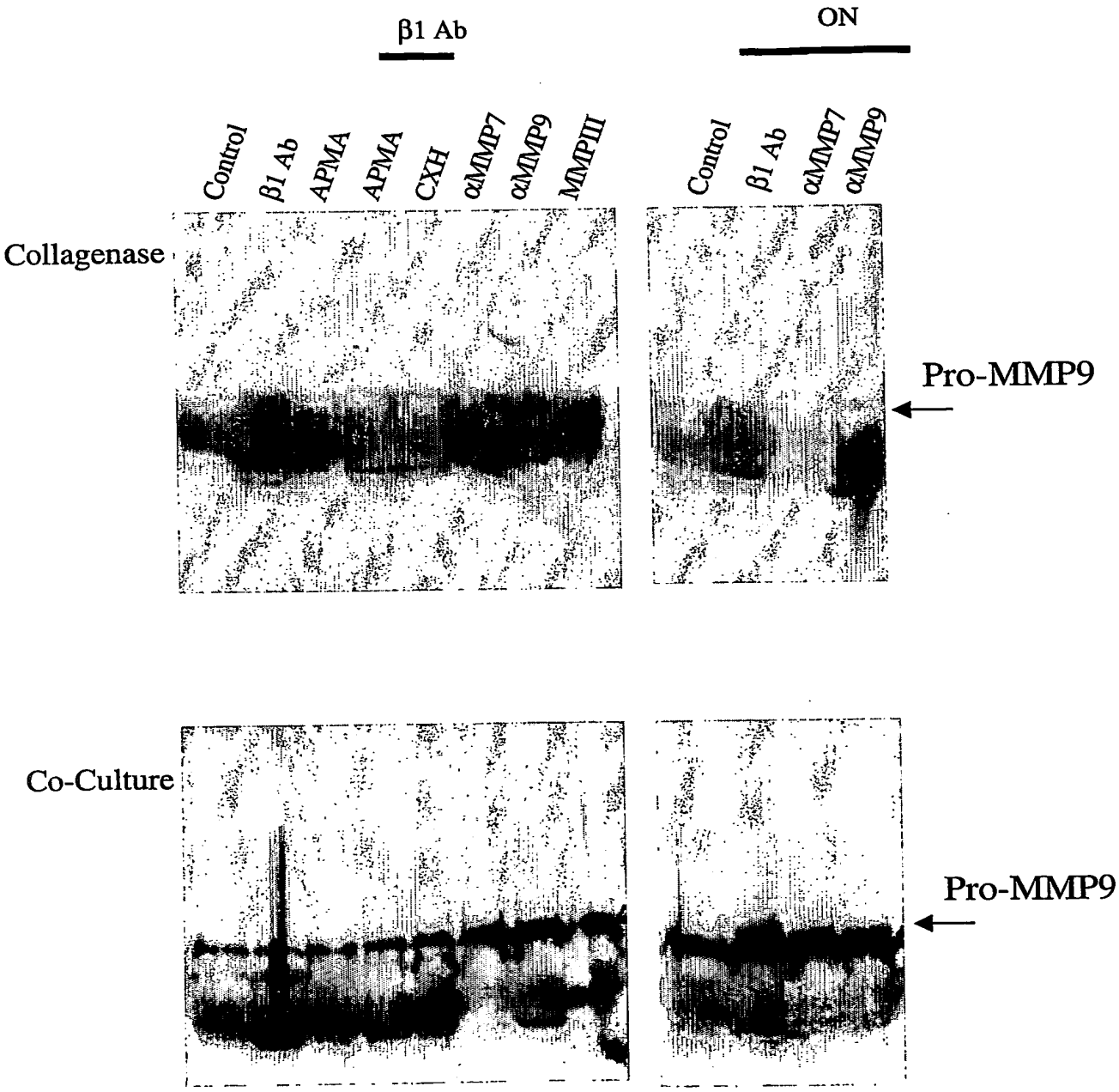
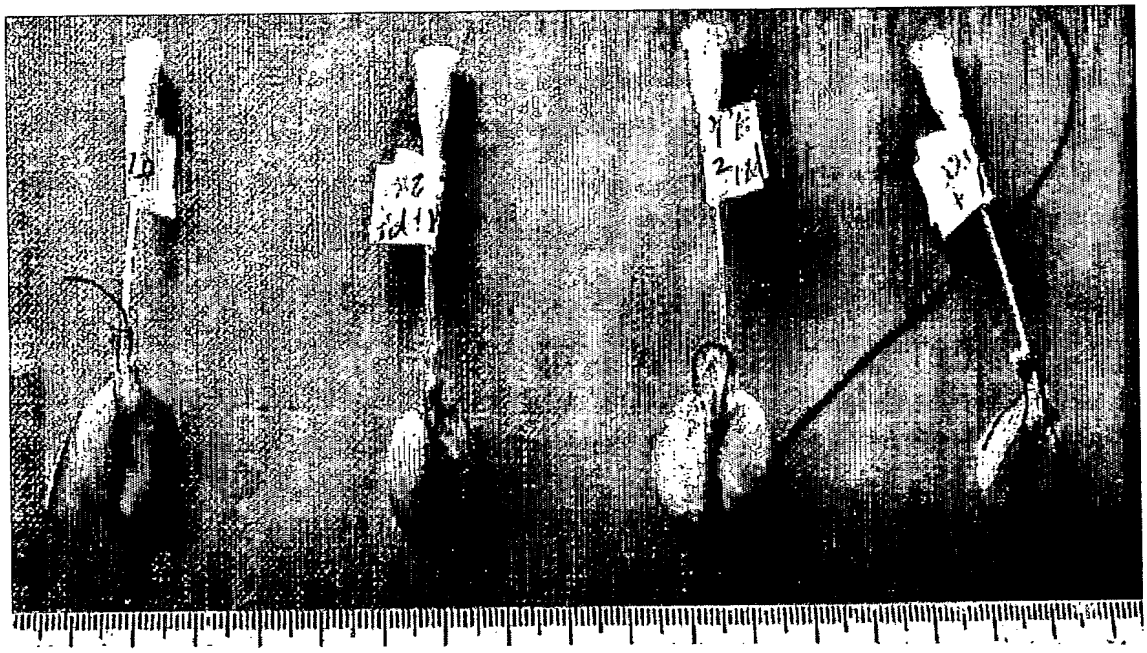


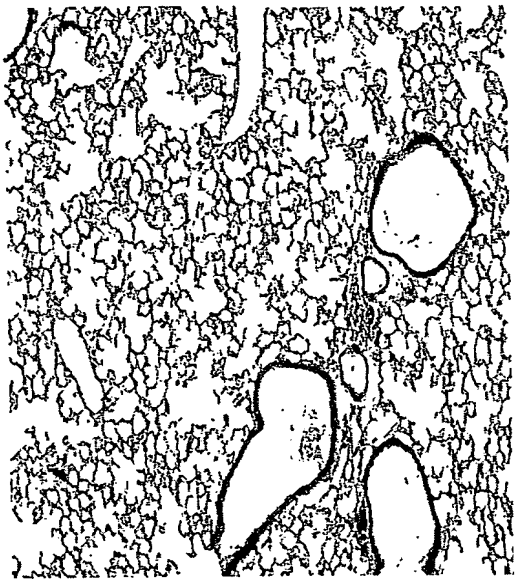
Figure 9. The effect of β1 integrin functional modification on MMP9 in cultured human lung cells



Control **3.5 U PPE** **19.5 U PPE** **19.5 U PPE + anti β1 integrin**

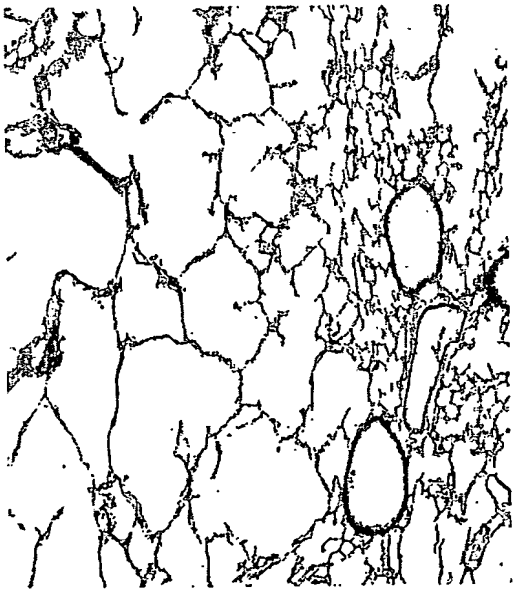
Figure 10. The effect of b1 integrin modulation on emphysematous lungs

Control



PPE 19.5 U (10d)

PPE 19.5 U (19d)



PPE + anti β1 integrin

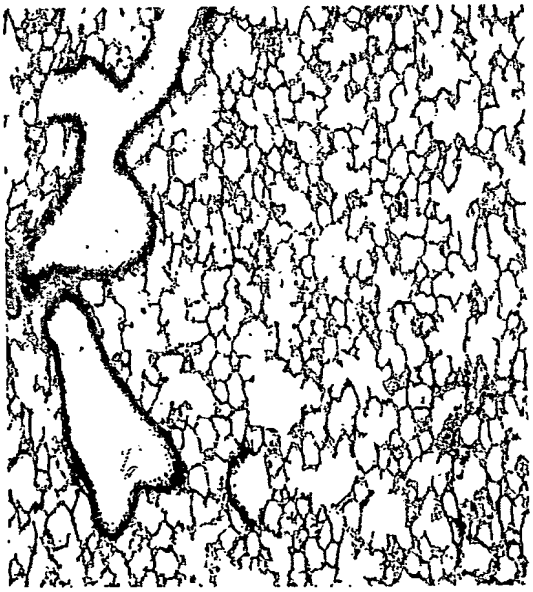


Figure 11.

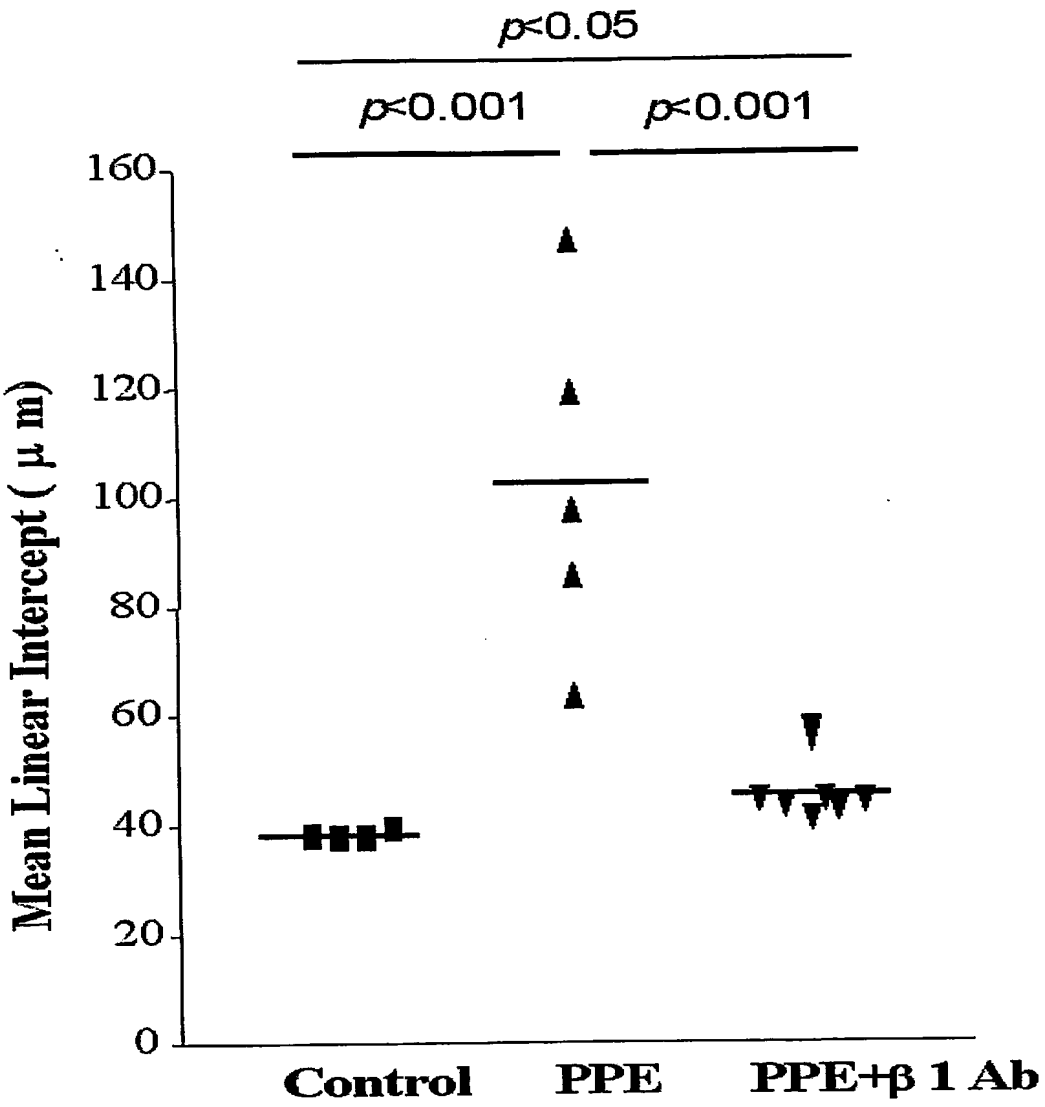


Figure 12. The effect of beta 1 integrin antibody on a space enlargement in elastase-induced emphysema in mice

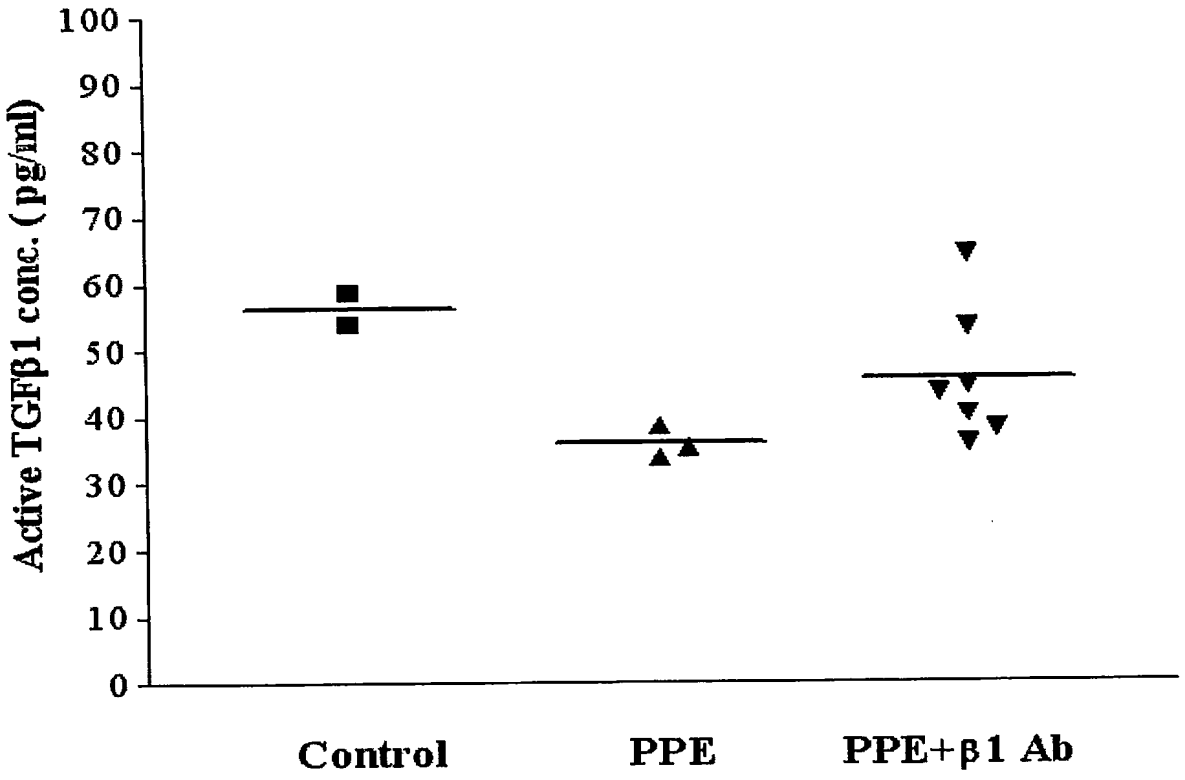


Figure 13. The effect of β1 integrin antibody on TGFβ1 levels in BAL fluid in elastase-induced emphysema in mice

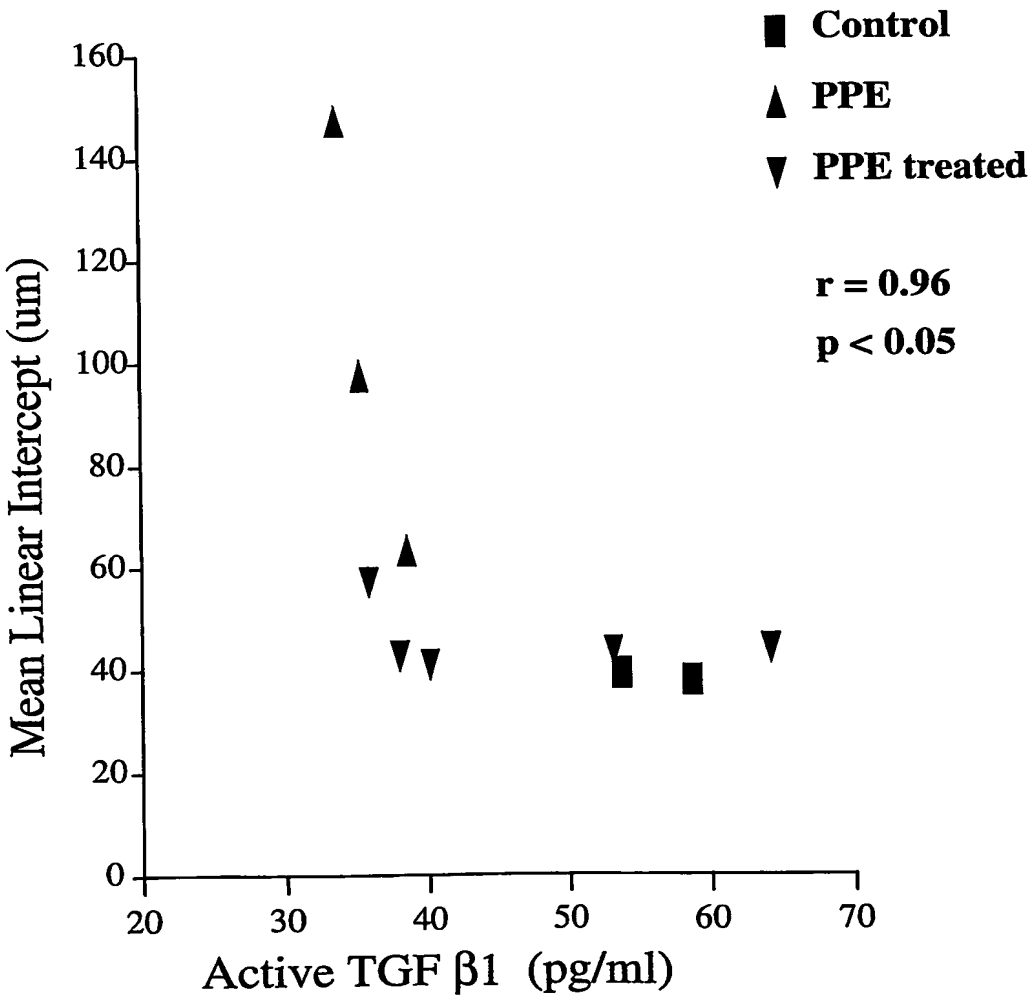


Figure 14. The relationship between airspace enlargement and TGF beta 1 levels in BAL fluid in mice

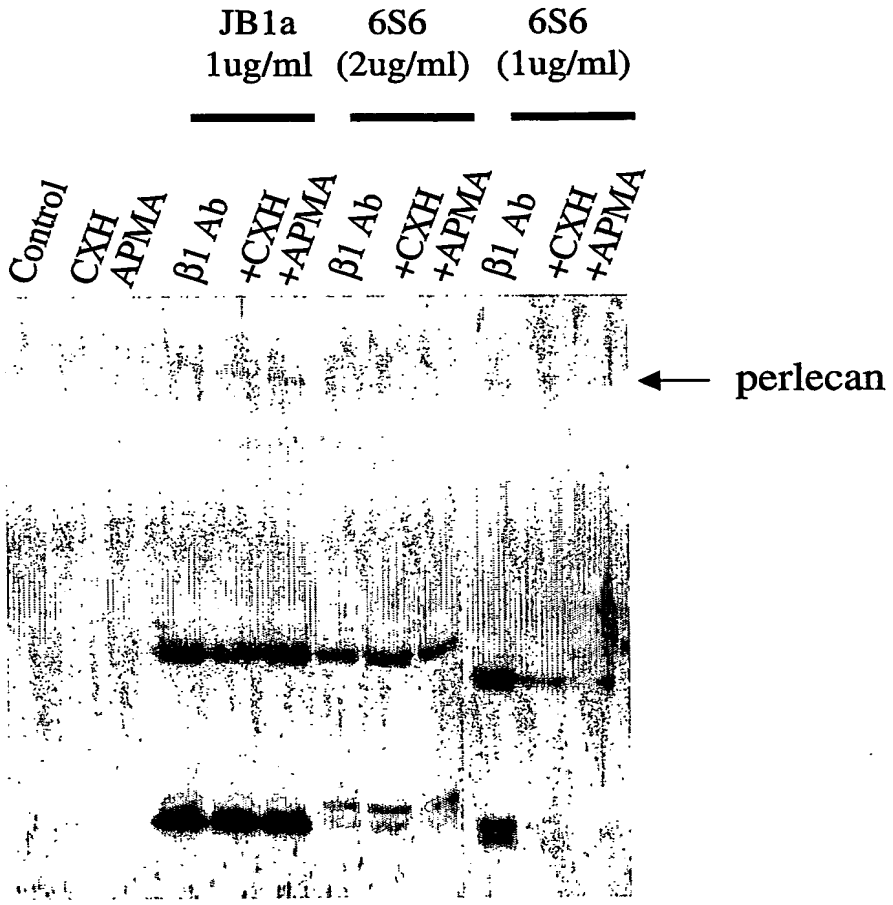


Figure 15. The effect of β1 integrin functional modification on perlecan in NCI-H441 human lung epithelial cell line

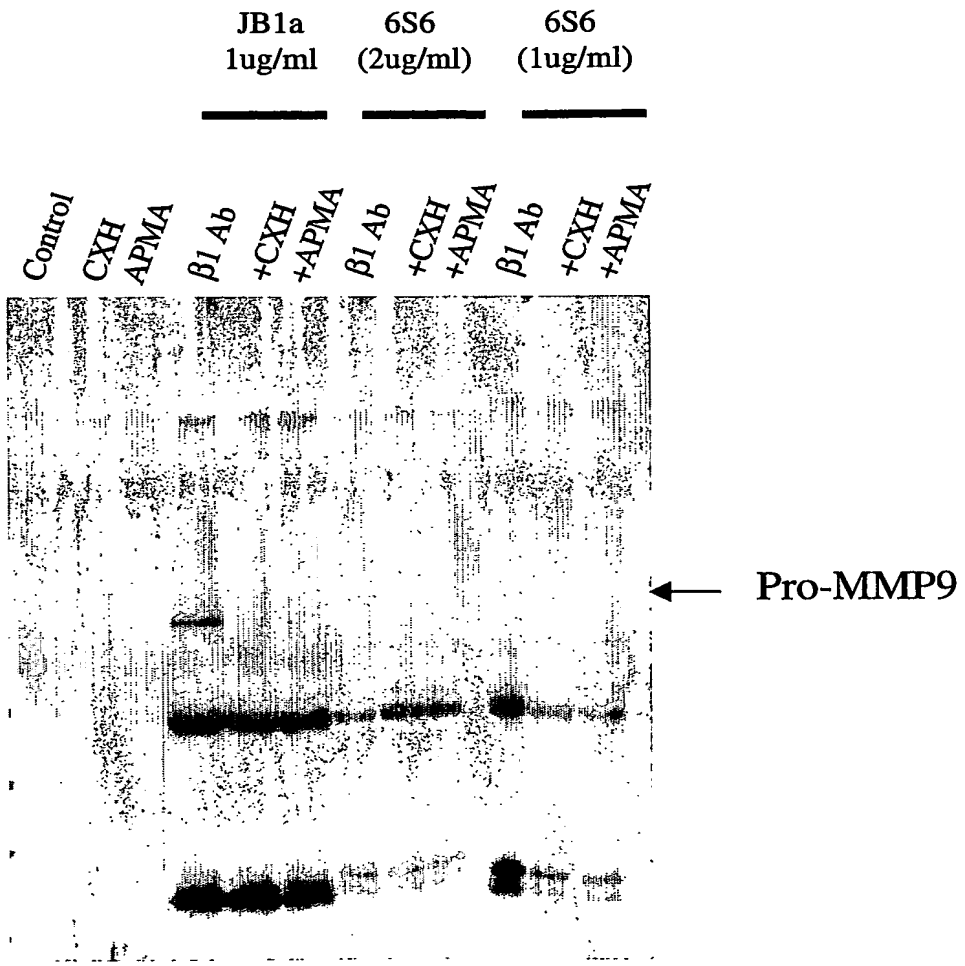


Figure 16. The effect of β1 integrin functional modification on inactive MMP9 in NCI-H441 human lung epithelial cell line

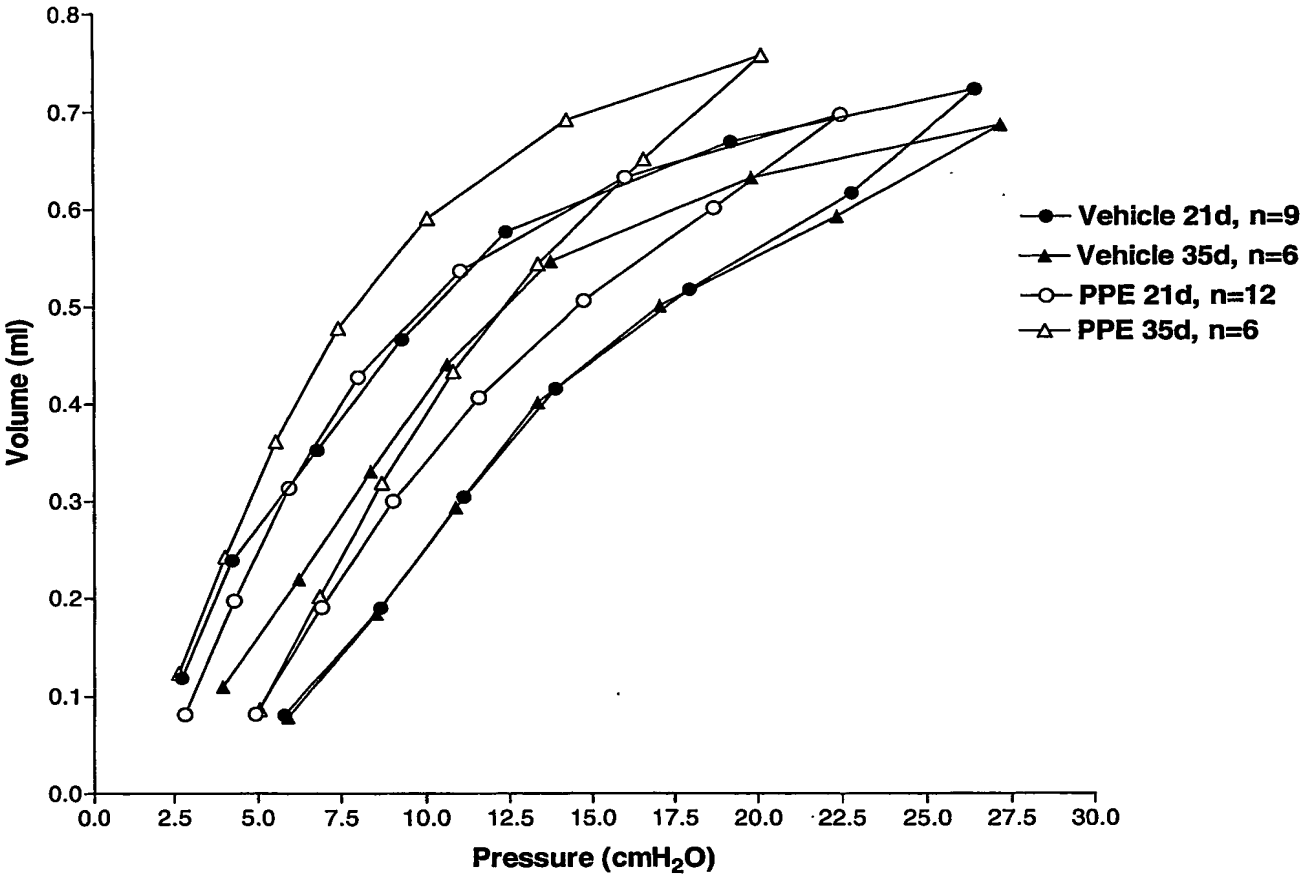

0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Volume (ml)
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
22.5
25.0
27.5
30.0
Pressure (cmH2O)
Vehicle 21d, n=9
Vehicle 35d, n=6
PPE 21d, n=12
PPE 35d, n=6

Figure 17

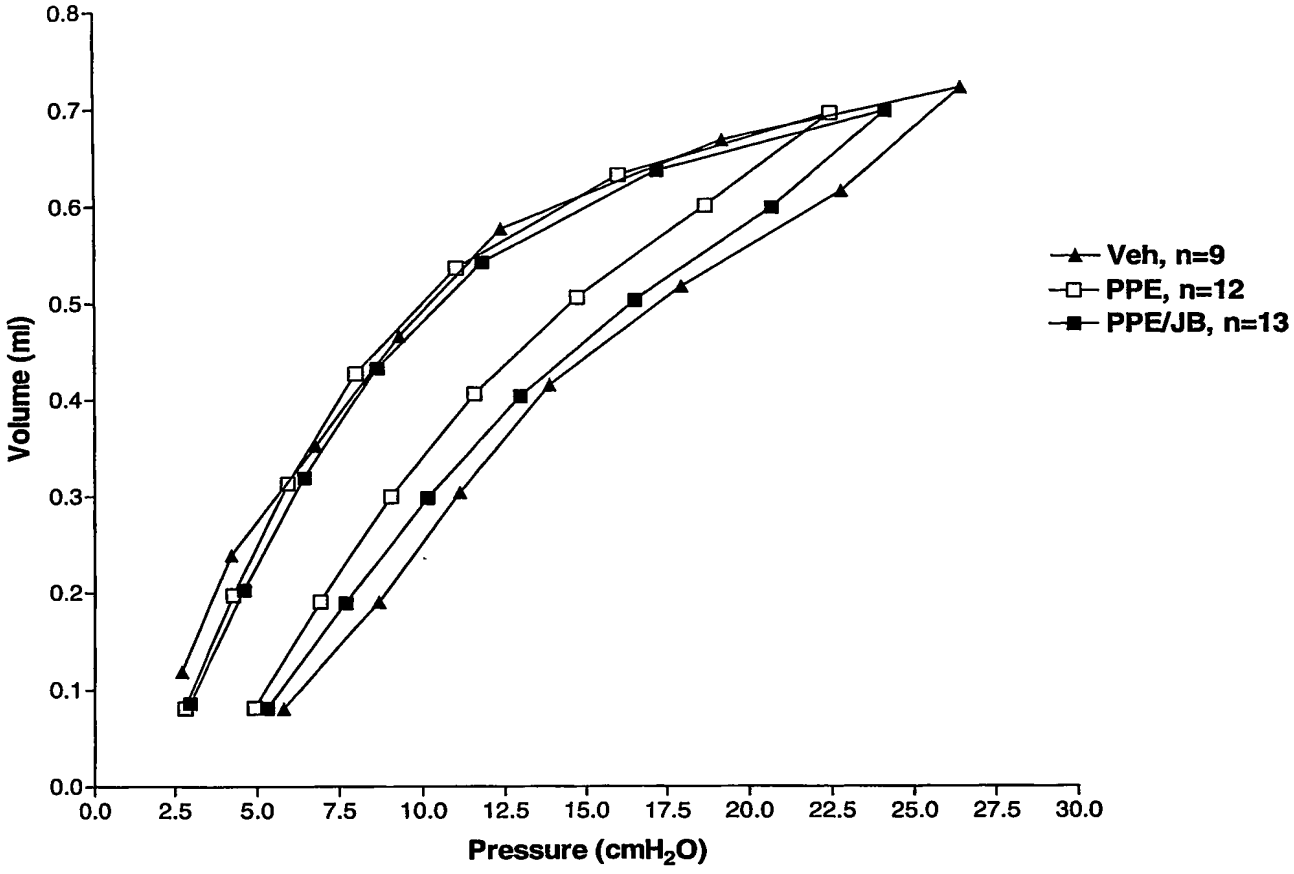

0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Volume (ml)
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
22.5
25.0
27.5
30.0
Pressure (cmH2O)
Veh, n=9
PPE, n=12
PPE/JB, n=13

Figure 18

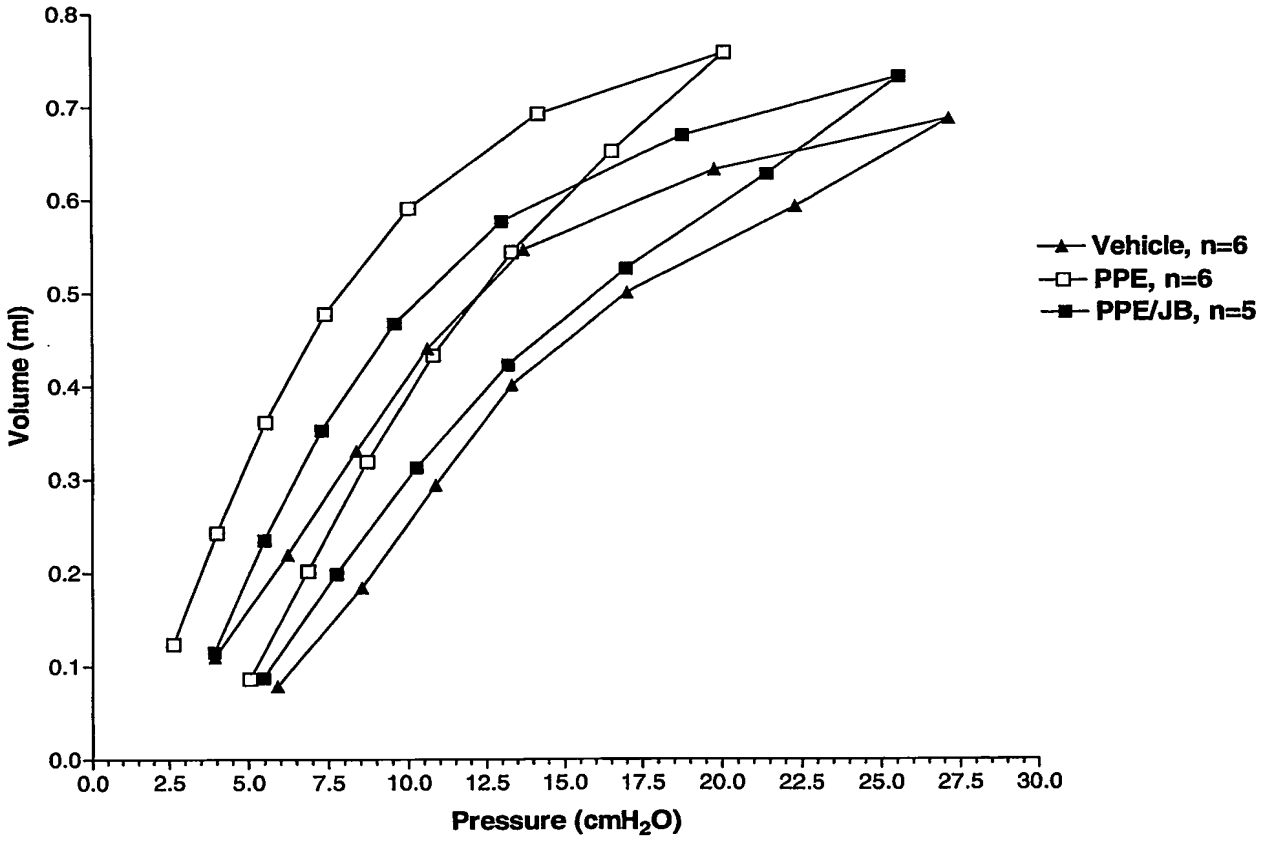

0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Volume (ml)
0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0 22.5 25.0 27.5 30.0
Pressure (cmH2O)
Vehicle, n=6
PPE, n=6
PPE/JB, n=5

Figure 19

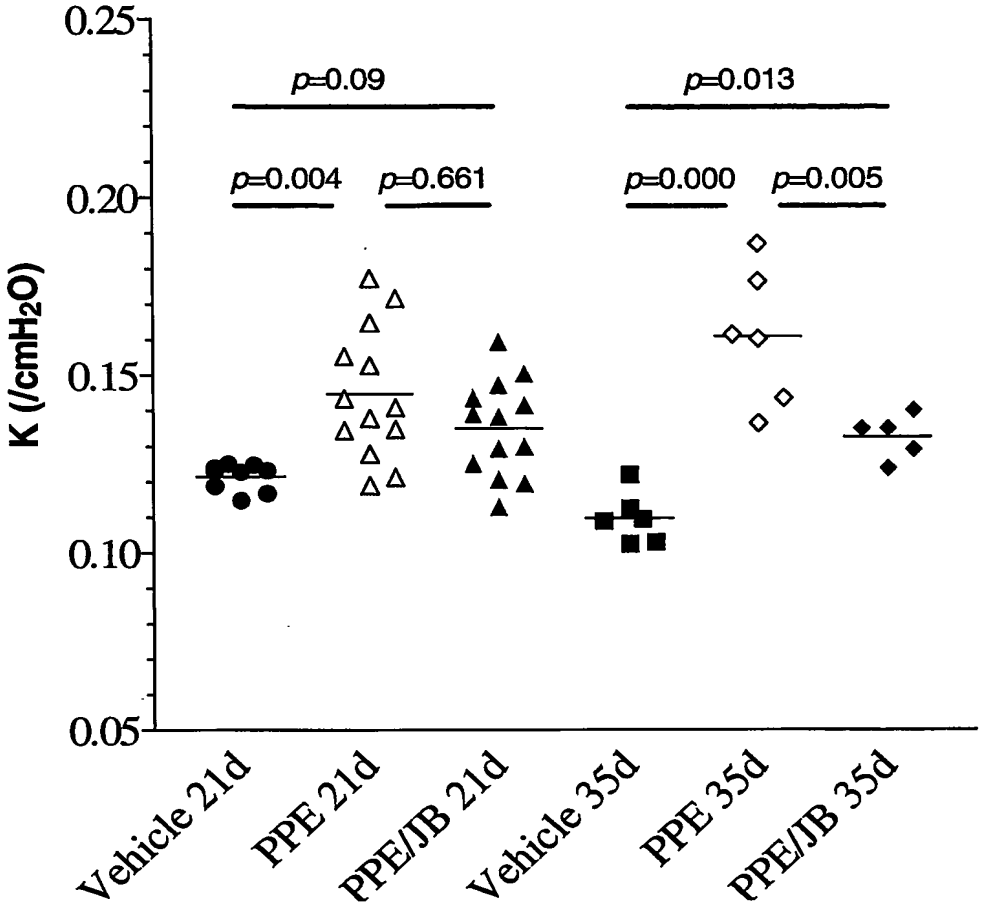

0.25
0.20
0.15
0.10
0.05
K (/cmH2O)
p=0.09
p=0.013
p=0.004
p=0.661
p=0.000
p=0.005
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 20

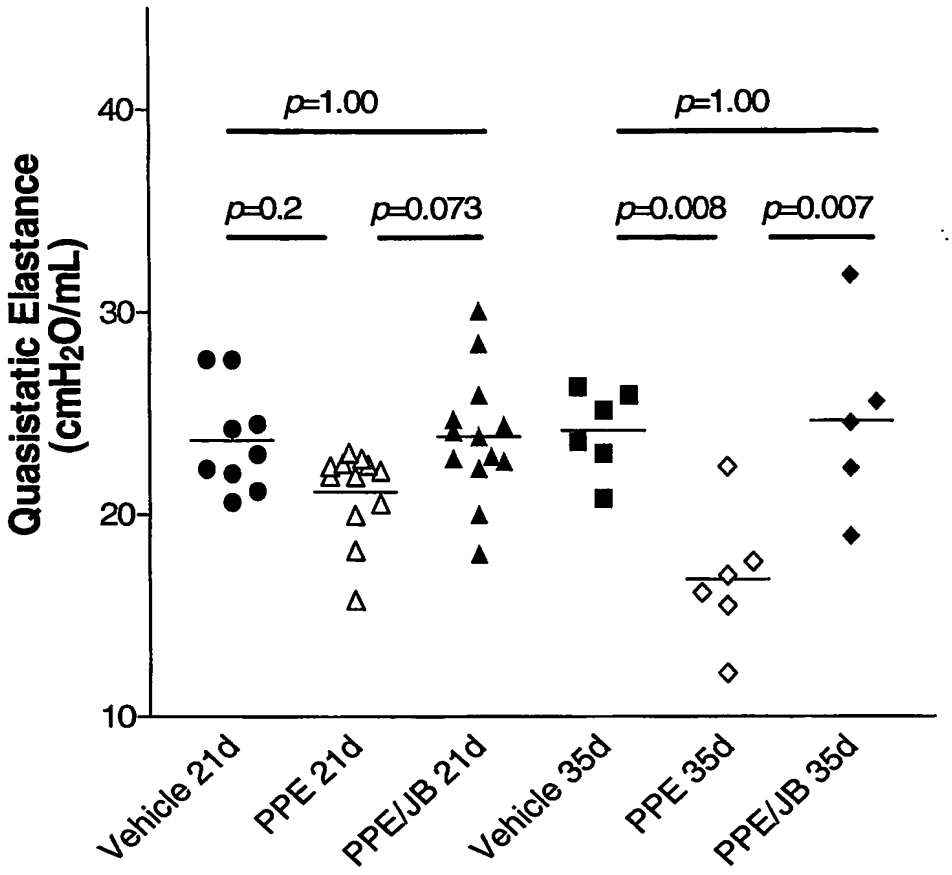

Quasistatic Elastance (cmH2O/mL)
40
30
20
10
p=1.00
p=1.00
p=0.2
p=0.073
p=0.008
p=0.007
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 21

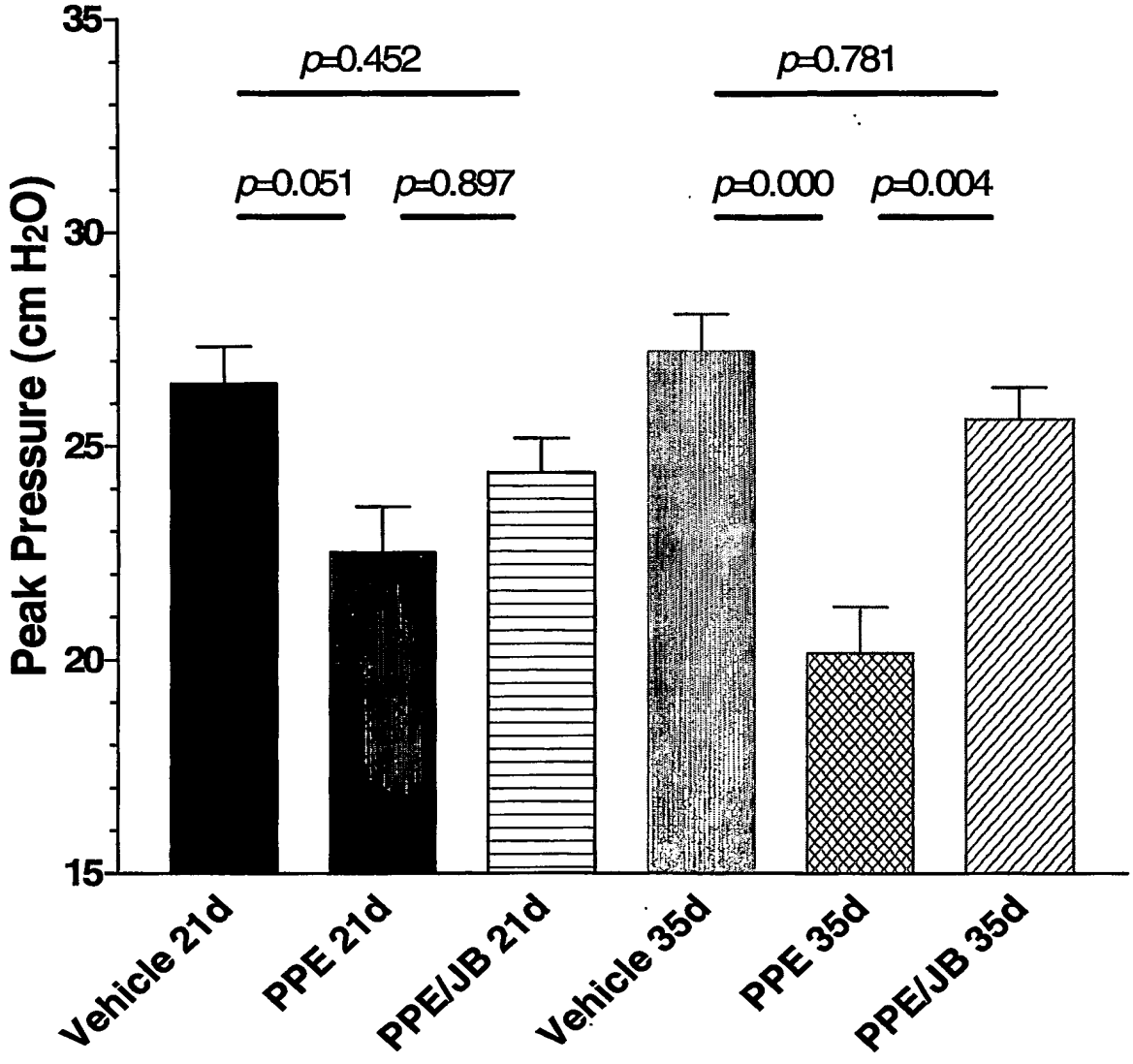

35
30
25
20
15
Peak Pressure (cm H2O)
p=0.452
p=0.781
p=0.051
p=0.897
p=0.000
p=0.004
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 22

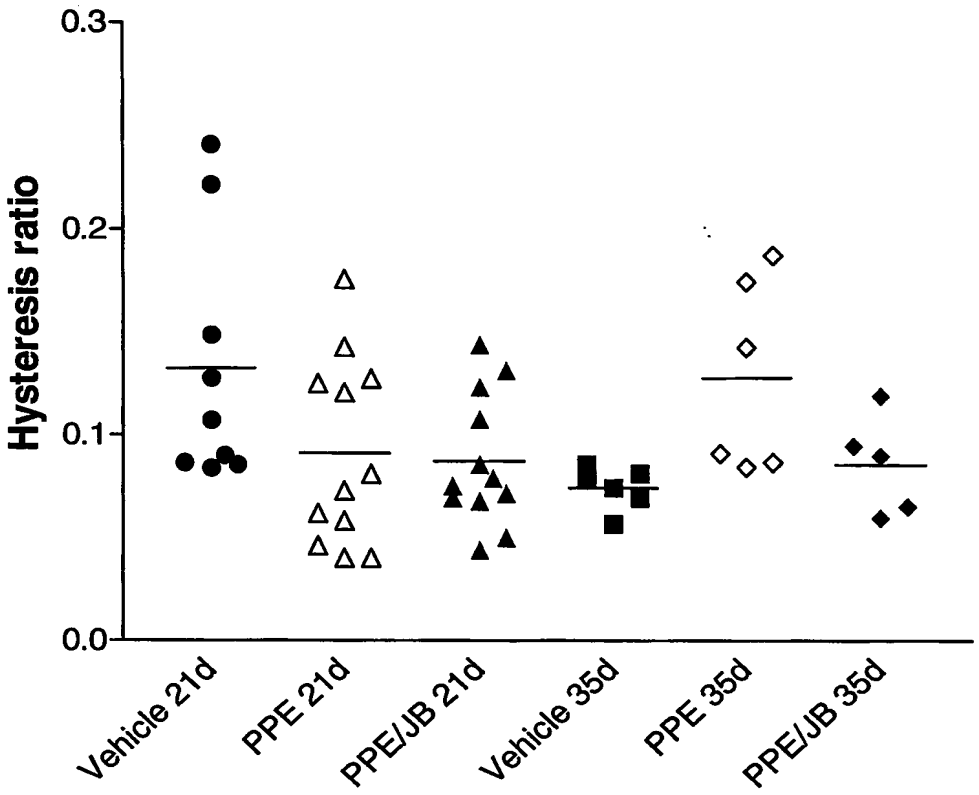

Hysteresis ratio
0.3
0.2
0.1
0.0
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 23

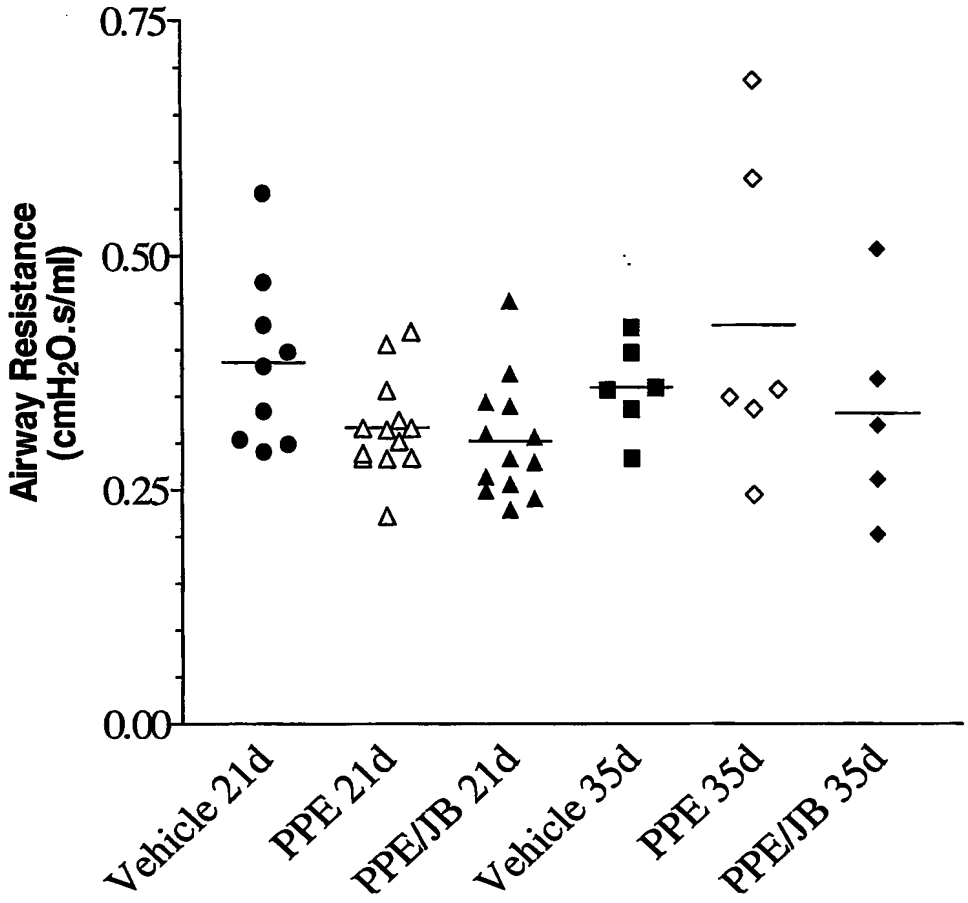

0.75
0.50
0.25
0.00
Airway Resistance
(cmH2O.s/ml)
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 24

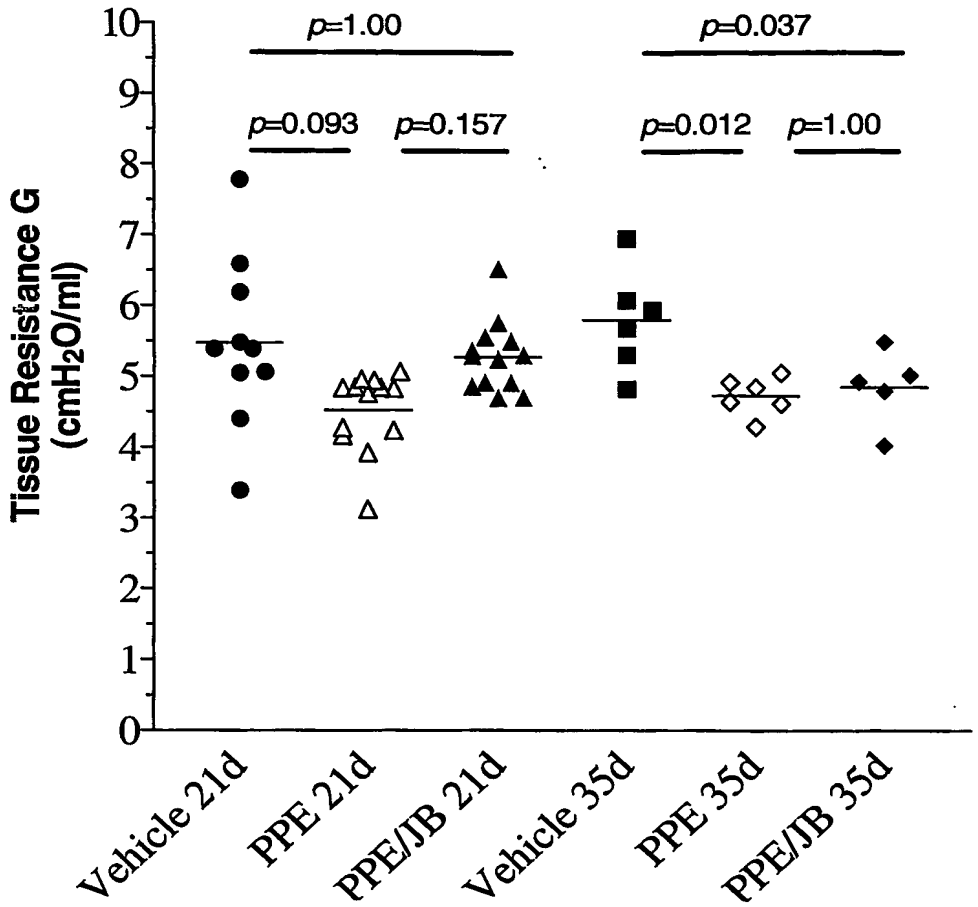

p=1.00
p=0.037
p=0.093
p=0.157
p=0.012
p=1.00
Tissue Resistance G
(cmH2O/ml)
10
9
8
7
6
5
4
3
2
1
0
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 25

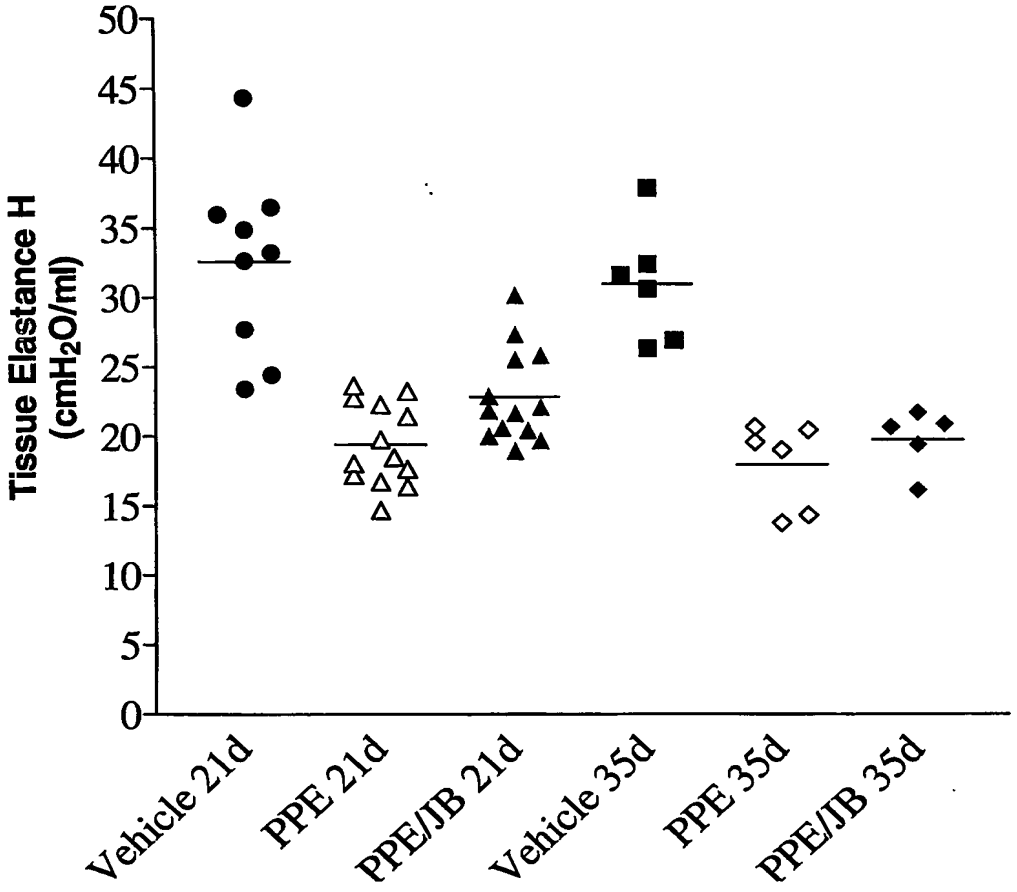

Tissue Elastance H
(cmH2O/ml)
50
45
40
35
30
25
20
15
10
5
0
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 26

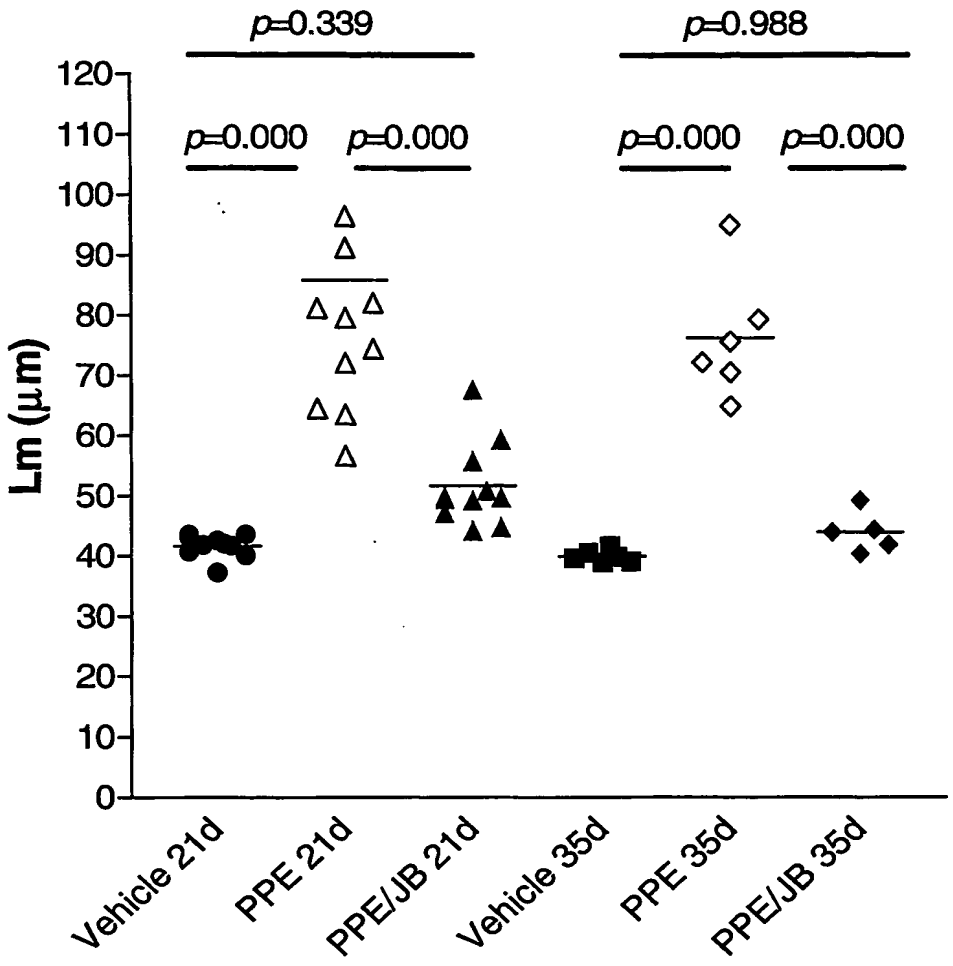

p=0.339
p=0.988
p=0.000
p=0.000
p=0.000
p=0.000
120
110
100
90
80
70
60
50
40
30
20
10
0
Lm (µm)
Vehicle 21d
PPE 21d
PPE/JB 21d
Vehicle 35d
PPE 35d
PPE/JB 35d

Figure 27

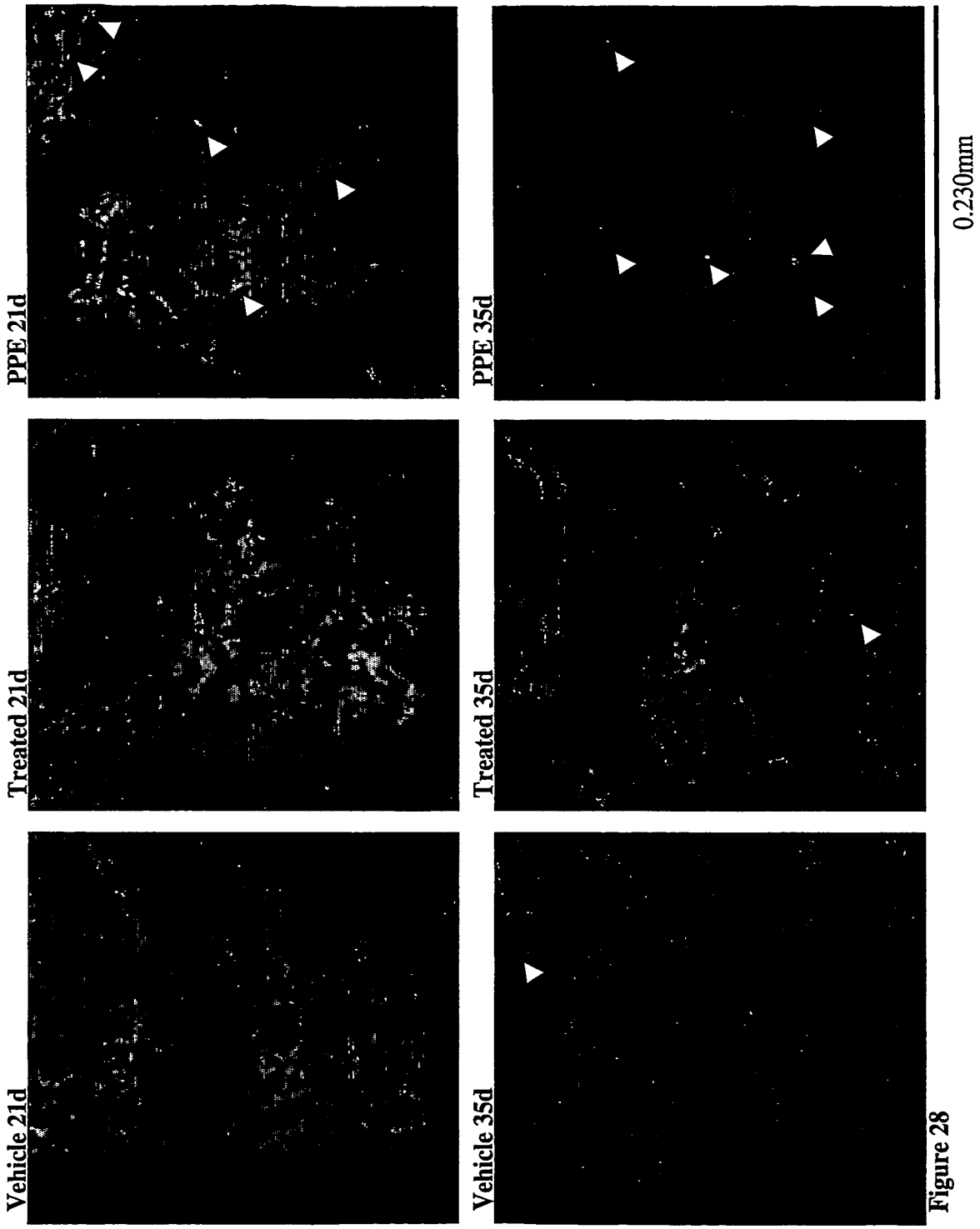

PPE 21d
PPE 35d
0.230mm
Treated 21d
Treated 35d
Vehicle 21d
Vehicle 35d

Figure 28

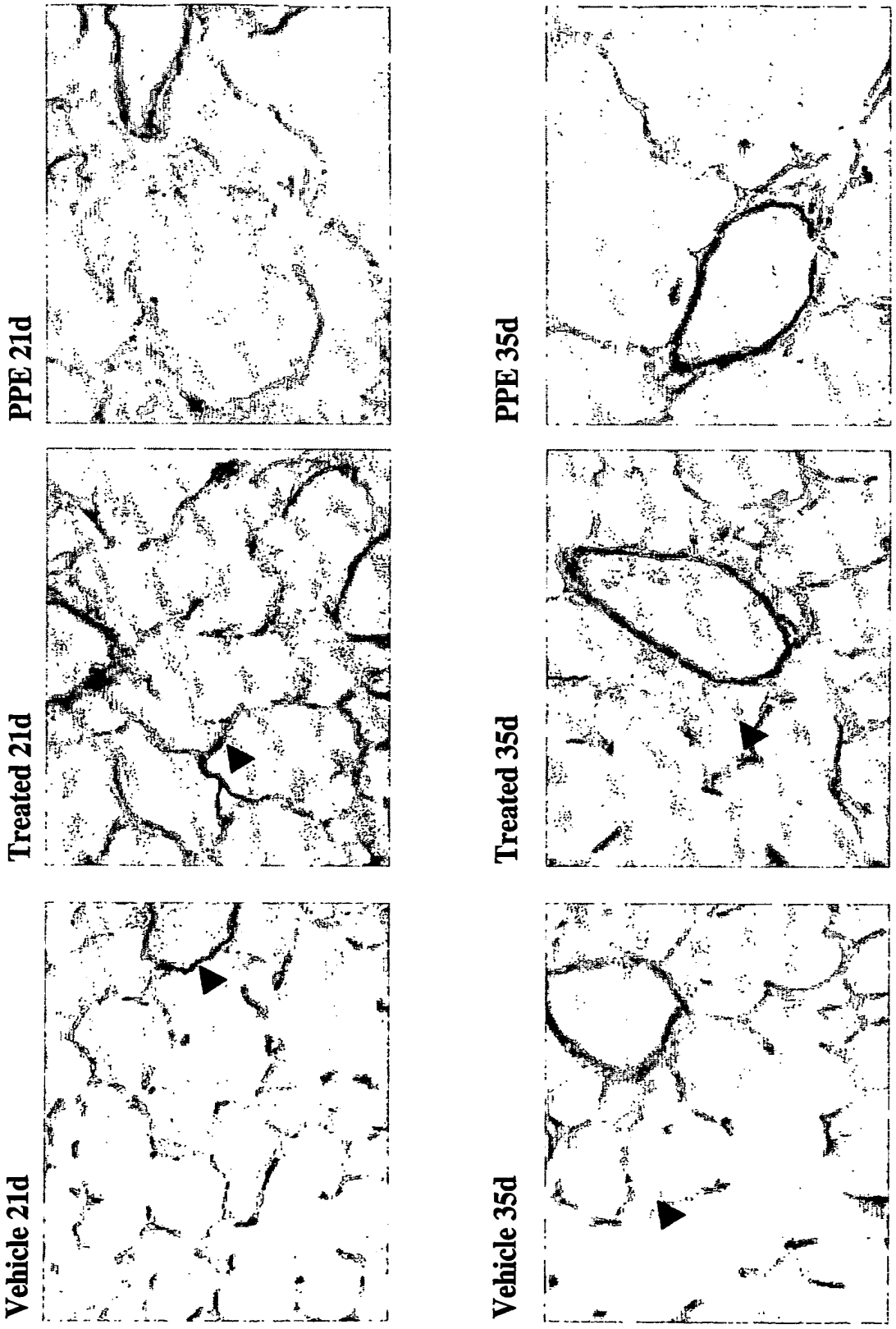

PPE 21d
Treated 21d
Vehicle 21d
PPE 35d
Treated 35d
Vehicle 35d

Figure 29

		K	Raw	G	H	Lm	Quasi-static Elastance	PeakPressure
K	Pearson Correlation	1.000	0.156	-0.358	-0.693	0.605	-0.648	-0.743
	Sig. (2-tailed)	.	0.269	0.009	0.000	0.000	0.000	0.000
	N	52	52	52	52	49	51	51
Raw	Pearson Correlation	0.156	1.000	-0.023	-0.007	-0.063	-0.184	0.037
	Sig. (2-tailed)	0.269	.	0.874	0.963	0.666	0.195	0.798
	N	52	52	52	52	49	51	51
G	Pearson Correlation	-0.358	-0.023	1.000	0.721	-0.556	0.429	0.072
	Sig. (2-tailed)	0.009	0.874	.	0.000	0.000	0.002	0.618
	N	52	52	52	52	49	51	51
H	Pearson Correlation	-0.693	-0.007	0.721	1.000	-0.544	0.455	0.405
	Sig. (2-tailed)	0.000	0.963	0.000	.	0.000	0.001	0.003
	N	52	52	52	52	49	51	51
Lm	Pearson Correlation	0.605	-0.063	-0.556	-0.544	1.000	-0.573	-0.600
	Sig. (2-tailed)	0.000	0.666	0.000	0.000	.	0.000	0.000
	N	49	49	49	49	50	48	48
Quasi-static Elastance	Pearson Correlation	-0.648	-0.184	0.429	0.455	-0.573	1.000	0.591
	Sig. (2-tailed)	0.000	0.195	0.002	0.001	0.000	.	0.000
	N	51	51	51	51	48	51	51
Peak Pressures	Pearson Correlation	-0.743	0.037	0.072	0.405	-0.600	0.591	1.000
	Sig. (2-tailed)	0.000	0.798	0.618	0.003	0.000	0.000	.
	N	51	51	51	51	48	51	51

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Figure 30 – Table 1